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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,924	08/25/2003	Clayton M. Hardman	P/55-6	2437

7590 03/27/2008  
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EXAMINER
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BAYARD, EMMANUEL

ART UNIT	PAPER NUMBER
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2611

MAIL DATE	DELIVERY MODE
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03/27/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/647,924	<b>Applicant(s)</b> HARDMAN, CLAYTON M.	
	<b>Examiner</b> Emmanuel Bayard	<b>Art Unit</b> 2611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 04 January 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **DETAILED ACTION**

This is in response to RCE filed on 1/04/08 in which claims 1-10 are pending.

#### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-2 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamdi U.S. Pub No 20010002902.

As per claim 1, Hamdi teaches a system that provides a user of a single analog line multiple uses of said line comprising; a modem (see fig.2a element 180) connected to a fixed logic system which multiplexes or demultiplexes data; said modem compressing a signal traveling through said analog line (see page 5 [0052] and page 6 [0064]); said modem providing simultaneous transmission of two, or more, speech or data calls (see page 4 paragraph [0046], [0051], [0062-0067]).

AS per claim 2, Hamdi teaches wherein said modem is programmable (see page 7 paragraph [0074]).

#### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the

Art Unit: 2611

applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

4. Claims 1-2 and 4-10 are rejected under 35 U.S.C. 102(e) as being anticipated by Staples et al U.S. Patent No 6,301,339 B1.

As per claim 1, Staples et al teaches a system that provides a user of a single analog line multiple uses of said line comprising; a modem connected to a fixed logic system which multiplexes or demultiplexes data (see col.17, lines 19-40); said modem compressing a signal traveling through said analog line (see col.17, lines 45-49 and col.21, lines 50-55 and col.22, lines 48-54 and col.49, lines 35-55); said modem providing simultaneous transmission of two, or more, speech or data calls (see col.3, lines 28-35).

As per claim 2, Staples et al teaches wherein said modem is programmable (see col.13, lines 10-15 and col.16, line 66-col.17, line 10).

As per claim 4, Staples et al inherently teaches wherein said system is reprogrammed as needed (see col.2, lines 60-67).

As per claim 5, Staples et al inherently teaches wherein said modem is downloaded on analog lines, cable, satellite and fiber lines (see col.7, lines 14-18).

As per claim 6, Staples et al inherently teaches wherein said simultaneous transmission is accomplished by compressing conventional analog voice traffic to occupy less bandwidth (see col.17, lines 45-49 and col.21, lines 50-55 and col.22, lines 48-54 and col.49, lines 35-55). It is well known in the art that compression is accomplished to occupy minimum bandwidth.

As per claim 7, Staples et al inherently teaches further comprising a speech compression algorithm requiring between about 5.6 to 6.4 kbps of bandwidth (see col.17, lines 45-49 and col.21, lines 50-55 and col.22, lines 48-54 and col.49, lines 35-55). It is well known in the art that compression is accomplished to occupy minimum bandwidth.

As per claim 8, Staples et al inherently teaches wherein said modem further comprises field programmable gate array chips (see col.13, lines 10-15 and col.11, lines 27-36).

As per claim 9, Staples et al inherently teaches wherein said system is connected to a copper line by a COTS modem.

As per claim 10, Staples et al inherently teaches wherein said system comprises two • modems, one at each end of an analog line; a first modem compresses and multiplexes data at a source end of said line; and a second modem demultiplexes and expands data at an exchange end of a copper line (see fig.2 and col.7, lines 56-65).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Staples et al U.S. Patent No 6,301,339 B in view of Bowen U.S. Pub no 2002/0100029 A1

As per claim 3, Stapples et al teaches all the features of the claimed invention except wherein said modem incorporates Handel-C.

6. Bowen teaches wherein said modem incorporates Handel-C (see fig.6 element 604 and page 1 [0009]).

7. It would have been obvious to one of ordinary skill in the art to implement the teaching of Bowen into Stapples as to enable a software or hardware engineer to target directly FPGAs in similar fashion to classical microprocessor cross-compiler development tools as taught by Bowen (see page 1[0009]).

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

9. Oliver U.S. Patent No 6,292,484 B1 teaches a system and method for low overhead multiplexing.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel Bayard whose telephone number is 571 272 3016. The examiner can normally be reached on Monday-Friday (7:Am-4:30PM) Alternate Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chieh Fan can be reached on 571 272 3042. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

3/18/2008

Emmanuel Bayard  
Primary Examiner  
Art Unit 2611

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Primary Examiner, Art Unit 2611